

Table 1
Hess Corporation Former Port Reading Complex
750 Cliff Road
Port Reading, NJ

AOC 103 - Fire Area/Fire Pits Summary of Groundwater Analytical Results

Client Sample ID:		NJ Criteria (NJAC 7:9C 9/4/18) ¹	NJ Interim Groundwater Criteria (NJAC 7:9C 1/17/19) ²	FA-1	FA-2	FA-3	FA-4	FA-5	FA-6	FA-7
Lab Sample ID:				JD2525-1	JD2525-2	JD2525-3	JD2525-4	JD2525-5	JD2525-6	JD2525-7
Date Sampled:				1/29/2020	1/29/2020	1/29/2020	1/29/2020	1/29/2020	1/29/2020	1/29/2020
Matrix:				Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
Tetrachloroethene	ug/l	1	-	ND (0.90)	ND (0.90)	ND (0.90)	ND (0.90)	ND (0.90)	ND (0.90)	ND (0.90)
Toluene	ug/l	600	-	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	0.61 J	ND (0.53)	ND (0.53)
1,2,3-Trichlorobenzene	ug/l	-	-	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)
1,2,4-Trichlorobenzene	ug/l	9	-	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)
1,1,1-Trichloroethane	ug/l	30	-	ND (0.54)	ND (0.54)	ND (0.54)	ND (0.54)	ND (0.54)	ND (0.54)	ND (0.54)
1,1,2-Trichloroethane	ug/l	3	-	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)
Trichloroethene	ug/l	1	-	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)
Trichlorofluoromethane	ug/l	2000	-	ND (0.84)	ND (0.84)	ND (0.84)	ND (0.84)	ND (0.84)	ND (0.84)	ND (0.84)
Vinyl chloride	ug/l	1	-	ND (0.79)	ND (0.79)	ND (0.79)	ND (0.79)	ND (0.79)	ND (0.79)	ND (0.79)
m,p-Xylene	ug/l	-	-	ND (0.78)	ND (0.78)	1.4	ND (0.78)	5.2	ND (0.78)	ND (0.78)
o-Xylene	ug/l	-	-	ND (0.59)	ND (0.59)	1.9	1.4	5.5	ND (0.59)	ND (0.59)
Xylene (total)	ug/l	1000	-	ND (0.59)	ND (0.59)	3.3	1.4	10.7	ND (0.59)	ND (0.59)
MS Volatile TIC										
Total TIC, Volatile	ug/l	-	-	0	0	323.2 J	19 J	101.1 J	0	0
MS Semi-volatiles (EPA 537M BY ID)										
Perfluorohexanoic acid	ug/l	-	-	3.79	0.0095	0.0445	0.731	0.0165	1.91	0.112
Perfluoroheptanoic acid	ug/l	-	-	1.82	0.0049	0.0091	0.1	0.0088	0.224	0.0111
Perfluorooctanoic acid	ug/l	-	0.01	0.89	0.004	0.0169	0.221	0.0087	0.276	0.0189
Perfluorononanoic acid	ug/l	0.013	-	ND (0.0086)	0.0035	0.0062	ND (0.0086)	0.0274 J	ND (0.086)	0.004
Perfluorodecanoic acid	ug/l	-	-	ND (0.0086)	0.0029 J	0.0044	ND (0.0086)	0.0036	ND (0.0086)	0.0029 J
Perfluoroundecanoic acid	ug/l	-	-	ND (0.0086)	ND (0.00086)	ND (0.0043)	ND (0.0086)	ND (0.0086)	0.176	0.0061
Perfluorododecanoic acid	ug/l	-	-	ND (0.013)	ND (0.0013)	ND (0.0065)	ND (0.13)	ND (0.013)	ND (0.013)	ND (0.0013)
Perfluorotridecanoic acid	ug/l	-	-	ND (0.0086)	ND (0.00086)	ND (0.0043)	ND (0.0086)	ND (0.00086)	ND (0.0086)	ND (0.00086)
Perfluorotetradecanoic acid	ug/l	-	-	ND (0.0086)	ND (0.00086)	ND (0.0043)	ND (0.0086)	ND (0.00086)	ND (0.0086)	ND (0.00086)
Perfluorobutanesulfonic acid	ug/l	-	-	2.76	0.0047	0.025	0.437	0.0083	1.02	0.088
Perfluorohexanesulfonic acid	ug/l	-	-	58.4	0.0414	0.253	5.73	0.115	7.29	0.79
Perfluorooctanesulfonic acid	ug/l	-	0.01	4.45	0.17	0.868	33.8	0.421	61.7	1.96
MeFOSAA	ug/l	-	-	ND (0.034)	ND (0.0034)	ND (0.0034)	ND (0.034)	ND (0.034)	ND (0.034)	ND (0.0034)
EtFOSAA	ug/l	-	-	ND (0.034)	ND (0.0034)	ND (0.0034)	ND (0.034)	ND (0.034)	ND (0.034)	ND (0.0034)
MS Semi-volatiles (SW846 8270D)										
2-Chlorophenol	ug/l	40	-	ND (0.78)	ND (0.82)	ND (0.78)	ND (0.82)	ND (0.79)	ND (0.80)	ND (0.78)
4-Chloro-3-methyl phenol	ug/l	-	100	ND (0.85)	ND (0.89)	ND (0.85)	ND (0.89)	ND (0.86)	ND (0.87)	ND (0.85)
2,4-Dichlorophenol	ug/l	20	-	ND (1.2)	ND (1.3)	ND (1.2)	ND (1.3)	ND (1.2)	ND (1.2)	ND (1.2)
2,4-Dimethylphenol	ug/l	100	-	ND (2.3) °	ND (2.4) °	ND (2.3) °	ND (2.4) °	ND (2.3) °	ND (2.4) °	ND (2.3) °
2,4-Dinitrophenol	ug/l	40	-	ND (1.5)	ND (1.6)	ND (1.5)	ND (1.6)	ND (1.5)	ND (1.5)	ND (1.5)
2-Methylphenol	ug/l	50	-	ND (0.85)	ND (0.89)	ND (0.85)	ND (0.89)	ND (0.85)	ND (0.86)	ND (0.85)
3&4-Methylphenol	ug/l	50	-	ND (0.84)	ND (0.88)	ND (0.84) °	ND (0.88) °	ND (0.85) °	ND (0.85) °	ND (0.84) °

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Lab Sample ID:				JD2525-1	JD2525-2	JD2525-3	JD2525-4	JD2525-5	JD2525-6	JD2525-7
Date Sampled:				1/29/2020	1/29/2020	1/29/2020	1/29/2020	1/29/2020	1/29/2020	1/29/2020
Matrix:				Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
2-Nitrophenol	ug/l	-	-	ND (0.91)	ND (0.96)	ND (0.91)	ND (0.96)	ND (0.92)	ND (0.93)	ND (0.91)
4-Nitrophenol	ug/l	-	-	ND (1.1)	ND (1.2)	ND (1.1)	ND (1.2)	ND (1.1)	ND (1.1)	ND (1.1)
Phenol	ug/l	2000	-	ND (0.37)	ND (0.39)	ND (0.37)	ND (0.39)	ND (0.38)	ND (0.38)	ND (0.37)
2,3,4,6-Tetrachlorophenol	ug/l	200	-	ND (1.4)	ND (1.5)	ND (1.4)	ND (1.5)	ND (1.4)	ND (1.4)	ND (1.4)
2,4,5-Trichlorophenol	ug/l	700	-	ND (1.3)	ND (1.3)	ND (1.3)	ND (1.3)	ND (1.3)	ND (1.3)	ND (1.3)
2,4,6-Trichlorophenol	ug/l	20	-	ND (0.88)	ND (0.92)	ND (0.88)	ND (0.92)	ND (0.89)	ND (0.90)	ND (0.88)
Acenaphthene	ug/l	400	-	ND (0.18)	ND (0.19)	ND (0.18)	1.4	1.6	ND (0.19)	ND (0.18)
Acenaphthylene	ug/l	-	100	ND (0.13)	ND (0.14)	ND (0.13)	ND (0.14)	ND (0.13)	ND (0.13)	ND (0.13)
Acetophenone	ug/l	700	-	0.26 J	ND (0.21)	5.4	ND (0.21)	ND (0.20)	ND (0.20)	ND (0.20)
Anthracene	ug/l	2000	-	ND (0.20)	ND (0.21)	1.3	ND (0.21)	ND (0.20)	ND (0.20)	ND (0.20)
Atrazine	ug/l	3	-	ND (0.43)	ND (0.45)	ND (0.43) °	ND (0.45) °	ND (0.43) °	ND (0.43) °	ND (0.43) °
Benzaldehyde	ug/l	-	-	ND (0.28)	ND (0.29)	ND (0.28)	ND (0.29)	ND (0.28)	ND (0.28)	ND (0.28)
Benzo(g,h,i)perylene	ug/l	-	100	ND (0.32)	ND (0.34)	ND (0.32)	ND (0.34)	ND (0.33)	ND (0.33)	ND (0.32)
4-Bromophenyl phenyl ether	ug/l	-	-	ND (0.38)	ND (0.40)	ND (0.38)	ND (0.40)	ND (0.39)	ND (0.39)	ND (0.38)
Butyl benzyl phthalate	ug/l	100	-	ND (0.44)	ND (0.46)	ND (0.44)	ND (0.46)	ND (0.44)	ND (0.44)	ND (0.44)
1,1'-Biphenyl	ug/l	400	-	ND (0.20)	ND (0.21)	ND (0.20)	ND (0.21)	ND (0.20)	ND (0.21)	ND (0.20)
2-Chloronaphthalene	ug/l	600	-	ND (0.22)	ND (0.24)	ND (0.22)	ND (0.24)	ND (0.23)	ND (0.23)	ND (0.22)
4-Chloroaniline	ug/l	30	-	ND (0.32)	ND (0.34)	ND (0.32)	ND (0.34)	ND (0.33)	ND (0.33)	ND (0.32)
Carbazole	ug/l	-	-	ND (0.22)	ND (0.23)	0.26 J	ND (0.23)	ND (0.22)	ND (0.22)	ND (0.22)
Caprolactam	ug/l	4000	-	ND (0.62) °	ND (0.65) °	ND (0.62) °	ND (0.65) °	ND (0.62) °	ND (0.63) °	ND (0.62) °
Chrysene	ug/l	5	-	ND (0.17)	ND (0.18)	0.32 J	ND (0.18)	ND (0.17)	ND (0.17)	ND (0.17)
bis(2-Chloroethoxy)methane	ug/l	-	-	ND (0.26)	ND (0.28)	ND (0.26)	ND (0.28)	ND (0.27)	ND (0.27)	ND (0.26)
bis(2-Chloroethyl)ether	ug/l	7	-	ND (0.24)	ND (0.25)	ND (0.24)	ND (0.25)	ND (0.24)	ND (0.24)	ND (0.24)
2,2'-Oxybis(1-chloropropane)	ug/l	300	-	ND (0.38)	ND (0.40)	ND (0.38)	ND (0.40)	ND (0.39)	ND (0.39)	ND (0.38)
4-Chlorophenyl phenyl ether	ug/l	-	-	ND (0.35)	ND (0.37)	ND (0.35)	ND (0.37)	ND (0.35)	ND (0.36)	ND (0.35)
2,4-Dinitrotoluene	ug/l	-	-	ND (0.53)	ND (0.55)	ND (0.53) °	ND (0.55) °	ND (0.53) °	ND (0.54) °	ND (0.53) °
2,6-Dinitrotoluene	ug/l	-	-	ND (0.45)	ND (0.48)	ND (0.45) °	ND (0.48) °	ND (0.46) °	ND (0.46) °	ND (0.45) °
3,3'-Dichlorobenzidine	ug/l	30	-	ND (0.48)	ND (0.51)	ND (0.48)	ND (0.51)	ND (0.49)	ND (0.49)	ND (0.48)
Dibenzofuran	ug/l	-	-	ND (0.21)	ND (0.22)	ND (0.21)	0.85 J	1.1 J	ND (0.21)	ND (0.21)
Di-n-butyl phthalate	ug/l	700	-	ND (0.47)	ND (0.50)	ND (0.47) °	ND (0.50) °	ND (0.48) °	ND (0.48) °	ND (0.47) °
Di-n-octyl phthalate	ug/l	100	-	ND (0.22)	ND (0.23)	ND (0.22)	ND (0.23)	ND (0.22)	ND (0.23)	ND (0.22)
Diethyl phthalate	ug/l	6000	-	ND (0.25)	ND (0.26)	ND (0.25)	ND (0.26)	ND (0.25)	ND (0.25)	ND (0.25)
Dimethyl phthalate	ug/l	-	100	ND (0.21)	ND (0.22)	ND (0.21)	ND (0.22)	ND (0.21)	ND (0.21)	ND (0.21)
bis(2-Ethylhexyl)phthalate	ug/l	3	-	ND (1.6) °	ND (1.7) °	ND (1.6) °	ND (1.7) °	ND (1.6) °	ND (1.6) °	ND (1.6) °
Fluoranthene	ug/l	300	-	ND (0.16)	ND (0.17)	0.38 J	0.31 J	ND (0.16)	ND (0.17)	ND (0.16)
Fluorene	ug/l	300	-	ND (0.16)	ND (0.17)	ND (0.16)	2.9	2.6	0.22 J	ND (0.16)
Hexachlorocyclopentadiene	ug/l	40	-	ND (2.6)	ND (2.8)	ND (2.6)	ND (2.8)	ND (2.7)	ND (2.7)	ND (2.6)
Hexachloroethane	ug/l	7	-	ND (0.37)	ND (0.39)	ND (0.37)	ND (0.39)	ND (0.37)	ND (0.38)	ND (0.37)
Isophorone	ug/l	40	-	ND (0.26)	ND (0.28)	ND (0.26) °	ND (0.28) °	ND (0.27) °	ND (0.27) °	ND (0.26) °
2-Methylnaphthalene	ug/l	30	-	ND (0.20)	ND (0.21)	ND (0.20)	0.93 J	2.5	ND (0.20)	ND (0.20)
2-Nitroaniline	ug/l	-	-	ND (0.26)	ND (0.28)	ND (0.26)	ND (0.28)	ND (0.27)	ND (0.27)	ND (0.26)
3-Nitroaniline	ug/l	-	-	ND (0.37)	ND (0.39)	ND (0.37) °	ND (0.39) °	ND (0.37) °	ND (0.38) °	ND (0.37) °

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Matrix:				Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
4-Nitroaniline	ug/l	-	-	ND (0.42)	ND (0.44)	ND (0.42)	ND (0.44)	ND (0.42)	ND (0.43)	ND (0.42)
Naphthalene	ug/l	300	-	ND (0.22)	ND (0.23)	ND (0.22)	ND (0.23)	2.9	ND (0.23)	ND (0.22)
Nitrobenzene	ug/l	6	-	ND (0.61)	ND (0.64)	ND (0.61)	ND (0.64)	ND (0.62)	ND (0.62)	ND (0.61)
N-Nitroso-di-n-propylamine	ug/l	10	-	ND (0.46)	ND (0.48)	ND (0.46) ^c	ND (0.48) ^c	ND (0.46) ^c	ND (0.47) ^c	ND (0.46) ^c
N-Nitrosodiphenylamine	ug/l	10	-	ND (0.21)	ND (0.22)	ND (0.21)	ND (0.22)	ND (0.21)	ND (0.22)	ND (0.21)
Phenanthrene	ug/l	-	-	ND (0.17)	ND (0.18)	0.64 J	2	1.2	ND (0.17)	ND (0.17)
Pyrene	ug/l	200	-	ND (0.21)	ND (0.22)	0.31 J	ND (0.22)	ND (0.21)	ND (0.21)	ND (0.21)
1,2,4,5-Tetrachlorobenzene	ug/l	-	-	ND (0.35)	ND (0.37)	ND (0.35)	ND (0.37)	ND (0.36)	ND (0.36)	ND (0.35)
MS Semi-volatiles (SW846 8270D BY SIM)										
4,6-Dinitro-o-cresol	ug/l	0.7	-	ND (0.15)	ND (0.15)	ND (0.15)	ND (0.15)	ND (0.15)	ND (0.15)	ND (0.15)
Pentachlorophenol	ug/l	0.3	-	ND (0.12)	ND (0.13)	ND (0.12)	ND (0.13)	ND (0.12)	ND (0.13)	ND (0.13)
Benzo(a)anthracene	ug/l	0.1	-	ND (0.022)	ND (0.023)	0.232	0.134	ND (0.022)	ND (0.022)	ND (0.022)
Benzo(a)pyrene	ug/l	0.1	-	ND (0.032)	ND (0.033)	0.0976	0.0513	ND (0.032)	ND (0.032)	ND (0.032)
Benzo(b)fluoranthene	ug/l	0.2	-	ND (0.041)	0.0606	0.115	0.0701	ND (0.042)	ND (0.042)	ND (0.042)
Benzo(k)fluoranthene	ug/l	0.5	-	ND (0.048)	ND (0.050)	0.0506 J	ND (0.050)	ND (0.048)	ND (0.049)	ND (0.049)
Dibenzo(a,h)anthracene	ug/l	0.3	-	ND (0.048)	ND (0.050)	ND (0.048)	ND (0.050)	ND (0.048)	ND (0.049)	ND (0.049)
Hexachlorobenzene	ug/l	0.02	-	ND (0.011)	ND (0.011)	ND (0.011)	ND (0.011)	ND (0.011)	ND (0.011)	0.0167
Hexachlorobutadiene	ug/l	1	-	ND (0.048)	ND (0.050)	ND (0.048)	ND (0.050)	ND (0.048)	ND (0.049)	ND (0.049)
Indeno(1,2,3-cd)pyrene	ug/l	0.2	-	ND (0.048)	ND (0.050)	0.0512 J	ND (0.050)	ND (0.048)	ND (0.049)	ND (0.049)
1,4-Dioxane	ug/l	0.4	-	ND (0.048)	ND (0.050)	ND (0.048)	ND (0.050)	ND (0.048)	ND (0.049)	ND (0.049)
MS Semi-volatile TIC										
Total TIC, Semi-Volatile	ug/l	-	-	0	0	1422.8 J	240.6 J	1345.3 J	332.6 J	0
General Chemistry										
Chloride	mg/l	250	-	5.1	3.4	8.1	222	5.4	6.8	5.1
Solids, Total Dissolved	mg/l	500	-	129	118	130	624	151	201	166
Total Organic Carbon	mg/l	-	-	14.2	2.8	8.5	14.9	7.6	14.7	2.8

Footnotes:

^a Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high.

^b Associated CCV and BS outside of control limits high, sample was ND.

^c Associated CCV outside of control limits high, sample was ND.

*All groundwater samples analyzed by SGS of Dayton, NJ (Cert #12129) and SGS Orlando, FI